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Post-Traumatic Stress Disorder and the Canadian Vietnam Veteran

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Stress is an inherent part of everyday life for all people. The burgeoning literature on stress and illness indicates that exposure to stress can have severe consequences both physically and psychologically (Dohrenwend and Dohrenwend, 1974). While everyone is exposed to stress daily, it is apparent that some people, whether by circumstance or by design, are exposed to more stress than others. When the stress one encounters becomes too extreme the result may be a reaction termed Post-Traumatic Stress Disorder (PTSD).

PTSD results from exposure to trauma that is generally outside the range of normal human experience. It is characterized by symptoms such as recurrent and intrusive dreams and recollections of a traumatic event, a numbing of responsiveness to the external world as evidenced by feelings of detachment from others or constricted affect, and additional symptoms such as sleep disturbance, survivor guilt, and memory impairment or trouble concentrating (American Psychiatric Association, 1987). Natural disasters such as tornadoes, floods, and earthquakes are examples of stressors which produce PTSD. PTSD has also been documented in survivors of concentration camps, military combat, and victims of rape or other assaults.

It is apparent that some people, by virtue of their chosen professions or occupations, are more or less likely to risk exposure to severe stressors which could induce PTSD. High risk groups include doctors, nurses, policemen, firefighters, disaster relief/rescue workers, and military combatants. Military personnel represent an especially high risk group since they can specialize in, or be called upon to perform duties, in all of these areas. In time of war the risks are even greater. In past studies of Vietnam veterans, Stretch (1985, 1986a, 1986b) has shown that one does not have to be a combatant to be traumatized by war. Indeed, nurses serving in Vietnam did not actively engage in combat, yet they experienced the same prevalence of PTSD as did actual combatants, which provides support for the hypothesis that exposure to the violent aftermath of combat, as well as the constant threat of danger, can be just as traumatic as direct combat participation (Stretch, Vail, and Maloney; 1985).

The views expressed herein are those of the author and do not necessarily represent the views of the United States Army or the Department of National Defence, Canada.

Of concern to the military is whether veterans who have already participated in combat may be more or less susceptible to breakdown during future combat operations. Holloway and Ursano (1984) have shown that some Vietnam combat veterans, when faced with stresses in their present life situation, respond by exhibiting symptoms of PTSD associated with their Vietnam service, even if they have not exhibited such symptoms in the past. It may be that, while one is capable of containing the stresses of combat trauma for long periods of time, the introduction of additional significant stressors weakens that capability to maintain control and symptoms of PTSD may emerge. In a sense, the person's psychic defenses have been overwhelmed by additional stress. If this is true, then someone who experienced some form of significant trauma in the past may experience symptoms of PTSD when faced with an additional stressor in the future. Such a stressor for soldiers could include not only actual combat experiences, but associated stressors like sleep deprivation or being forced to operate in Nuclear, Biological, or Chemical Warfare (NBCW) protective clothing for long periods of time.

Research conducted by the Israelis one year after the end of the 1982 Lebanon War demonstrates that PTSD presents a major problem in post-combat adjustment. Of those soldiers who broke down in combat and were not returned to duty, 74% were experiencing symptoms of PTSD one year later. Of those soldiers who broke down in combat and were returned to duty, 38% were suffering from PTSD at the one-year follow-up. And, finally, of those soldiers who did not break down in combat, 16% were bothered by PTSD one year later (COL G. Belenky, personal communication, October 6, 1987). More research is needed to clarify the relationship between combat breakdown and future functioning in combat.

Since we cannot experimentally conduct a war for the purpose of determining who breaks down and who doesn't under certain controlled conditions, we are forced to examine the experiences of past combat veterans or survivors of other forms of extreme stress or trauma to gain insight into the etiology of stress reactions. Thus, most studies of stress reactions like PTSD are retrospective in nature and do not typically have baseline data available on trauma survivors prior to the onset of the trauma. One's personality and prior experience in dealing with stress are likely to play an important role in susceptibility to PTSD. On the other hand, recent research has shown that social support following exposure to trauma may be critical in determining whether a trauma survivor exhibits symptoms of PTSD (Center for Policy Research, 1981; Stretch, 1985; 1986a; 1986b).

While stress reactions such as PTSD have long been studied among Vietnam veterans, no known research has focused on the prevalence of PTSD among Canadians who served and fought in Vietnam.

According to McAndrew (1986) an estimated 10,000 to 40,000 Canadians enlisted in the U.S. military and fought in Vietnam. The study of PTSD among these Canadian Vietnam veterans is important for several reasons. One is the nature of their homecoming and subsequent readjustment experiences. While many Americans returned to the U.S. to face hostility and rejection for their role in the war, Canadians essentially returned home to a void. "They found neither rejection nor recognition. No one knew they had been in Vietnam so they were ignored. They remained isolated, not even knowing each other" (McAndrew, 1986). The fact that these veterans chose to voluntarily fight in an American war also makes them unique and may shed some light on the effects of motivation on reactions to combat stress.

A second reason why the study of these Canadian veterans is important concerns the issue of secondary gain. The diagnosis of PTSD has been criticized on this issue, particularly in the case of veterans seeking benefits from the U.S. Veterans Administration (VA). Prior to the inclusion of PTSD as a distinct psychiatric diagnosis, veterans who complained of psychological readjustment problems were often thought to be faking symptoms in order to gain compensation from the VA. However, there is little incentive for Canadian veterans to fake their responses in order to appear unable to cope with their Vietnam experiences. Canadian Vietnam veterans are not eligible for benefits from the federal Veterans Affairs department in Canada because they did not serve as part of a Canadian government sponsored effort. They have even been shut out in many instances by the established veterans group, the Royal Canadian Legion, and prevented from taking part in ceremonies honoring those who have died in past wars. Legion officials from the Prairie provinces have gone on record as calling Canadians who fought in Vietnam "mercenaries" and "traitors".

Until May 20, 1988, when President Reagan signed into law a bill authorizing the payment of medical benefits to Canadian veterans on a reimbursement basis, Canadian Vietnam veterans could only get benefits by going directly to the United States. Even now, most Canadian Vietnam veterans are either unaware of this law or are not sure how to go about getting treatment. Of primary concern to many Vietnam veterans in Canada is that the law does nothing to ensure that treatment for combat reactions such as PTSD becomes available. Since Canada has not fought a war since Korea, there are very few mental health professionals who have any training or experience in the diagnosis or treatment of combat-related disorders such as PTSD. Unfortunately, the Canadian Vietnam veteran is still forced to try to get to the U.S. for treatment of PTSD. Because the overwhelming majority of Canadian Vietnam veterans still have no access to veterans' services and, thus, no incentive for symptom maintenance, the responses of these veterans are likely to provide a more accurate picture of reactions to combat trauma than are the responses of other Vietnam veterans in the U.S. who are receiving government compensation.

The study of Canadian Vietnam veterans is also important because of the insight it can provide on post-combat factors which affect the course of recovery from PTSD. One objective of this research is to determine whether being ignored by society, as is the case with Canadian Vietnam veterans, is more or less detrimental to recovery from PTSD than is returning to negative and/or hostile reactions by society, as is the case with American Vietnam veterans. To this end, the prevalence of PTSD among Canadian Vietnam veterans in the study will be compared with that found for American Vietnam veterans using the same assessment questionnaire (see Stretch, 1986b).

Method

Subjects consisted of members of the Canadian Vietnam Veterans Coalition, a loose-knit organization composed of a number of separate groups across the country which formed over the last couple of years. In order to maintain the confidentiality of the membership of these groups, research packets containing a cover letter, questionnaire, informed consent form, and a postage-paid return envelope were sent to the group leaders in separate postage-paid envelopes. The group leaders then addressed and mailed each envelope to their individual members. Thus, complete confidentiality of potential subjects was maintained.

All subjects were sent a copy of a research instrument entitled the Vietnam-Era Veterans Adjustment Survey (VEVAS), which has established validity and reliability in studies involving over 2700 subjects (see Stretch, 1986b). The VEVAS provides information on demographics, attitudes and opinions about the war, combat experiences, social support experiences during and after service in Vietnam (particularly during the first year back from Vietnam), and both physical and psychosocial health problems during and after service in Vietnam. Additional items were added to obtain information on motivation for enlisting in the U.S. military as well as any unique experiences veterans returning to Canada faced. Data on physical health problems of veterans were collected to determine the relationship between stress and physical and psychosocial health, however, these data will be reported elsewhere.

Results

Questionnaires were sent to a total of 473 Vietnam veterans residing in Canada. Fifty-four subjects had moved and could not be located by mail. Completed questionnaires were received from 164 subjects for a return rate of 35%.

In terms of demographic data, the age of these veterans ranges from 32 to 60 years with an average of 42.2 years. Of the 163 subjects who responded, 144 (88.3%) are white, 15 (9.2%) are North American Indians, and four (2.5%) are black. Over 84% of the subjects have completed high school and 21% have a college or university degree. As regards marital status, 72% are currently married (of these 117 veterans presently married, 34 were previously divorced), 6% are separated, 14% are divorced, 2% are widowed, and 6% single. The average number of children for these veterans is 2.0.

During their service in Vietnam 70% of the veterans were Canadian citizens, 27% were United States citizens, one veteran was from Australia, one was from Italy, one was from Finland, and two were from Holland. Since leaving Vietnam, 30 subjects (18.8%) have changed their citizenship. Eleven Canadians have become U.S. citizens, 15 Americans have become Canadian citizens, and the four Finnish, Italian and Dutch subjects have become Canadian citizens. Almost half (49.4%) of subjects had returned or emigrated to Canada within one year of leaving active duty. Approximately 10% of subjects waited 10 years or longer to settle in Canada.

Currently, just under 14% of these veterans are unemployed (13.7%) with an additional 10% employed part-time who would prefer to work full-time. Annual gross income is $10,000 or less for 13.1% of the veterans with over half (54.4%) reporting incomes of more than $30,000. In looking at military service, almost 84% of the subjects served in either the U.S. Army (53.7%) or in the Marine Corps (30.2%), while 8% served in the Navy and 7.4% served in the Air Force. One veteran reported serving in the Coast Guard. Average age upon entry to the military was 19.8 years with 53.9 months being the average time spent on active duty (average time spent in Vietnam was 15 months). Just over 6% of subjects were drafted into the military although an additional 4.3% enlisted after receiving their draft notice. Less than 5% of those eligible for the draft considered avoiding it.

While in Vietnam, slightly under half (48.8%) of the subjects were assigned to combat arms units, 34% were in direct combat support roles, and 17% were assigned to support units in the rear. Just over 40% of the subjects

received combat-related injuries requiring hospitalization while in Vietnam, with an additional 25.9% hospitalized for non-combat injuries or illnesses. During Vietnam, 8% of subjects were officers and 92% enlisted personnel. Of the enlisted personnel, 56% were junior ranks (E1-E4) and 44% were Noncommissioned Officers (NCOs, E5 and above). Roughly 25% of subjects served in Vietnam prior to the 1968 TET Offensive. Over 95% of subjects received discharges under honorable conditions. One veteran did not receive a discharge as he deserted after returning from Vietnam.

An analysis of the results of that portion of the questionnaire which deals with attitudes and opinions about the war reveals that only three veterans stated that they did not support or were strongly opposed to the war when they joined the military. After entering the military, support for the war eroded slightly with 10 subjects (6.1%) indicating they either did not support or were strongly opposed to the war. While in Vietnam, 13 veterans (8%) did not support or were strongly opposed to the war. In looking at their attitudes about their service in Vietnam and their military service in general, almost 48% of subjects report that their military experiences have helped them get ahead in their job or career. Almost three-fourths (71.3%) report that their service, other than in Vietnam, has helped them become better persons, and over 55% report that their Vietnam service has helped them become better persons. The overall impact of their military service on their lives is rated positive by 66.5% of subjects. This positive rating drops to 46% when asked about the overall impact of their Vietnam service on their lives. In the event of a future war, 80% of subjects feel that they would be more effective soldiers because of their service in Vietnam, and 53% would be willing to serve in a similar war.

Of primary importance to this study is the readjustment of these veterans 15 to 23 years after leaving Vietnam. This was assessed by looking at their responses to 11 items representing the diagnostic criteria for Post-Traumatic Stress Disorder (PTSD). The questions were answered for two different time periods: at the present time and during their service in Vietnam. Using this data, PTSD prevalence rates were computed for both time periods. The results indicate that 90 veterans are currently suffering from self-reported symptoms of PTSD. This represents a current PTSD rate of 55%. A total of 83 veterans reported experiencing symptoms of PTSD during their service in Vietnam. This represents a Vietnam PTSD rate of 51%. By comparing those veterans reporting current PTSD problems with those reporting problems while in Vietnam, it is possible to compute additional prevalence rates approximating the categories of Acute, Chronic, and Delayed PTSD. Seventeen veterans reported symptoms of PTSD while in Vietnam, but do not report being bothered by symptoms of PTSD at the present time. These veterans may be thought of as having suffered "Acute" PTSD, although it is possible that these symptoms may have lasted more than 6 months, contrary to the strict guidelines provided by DSM-IIIR (APA, 1987). This represents 10.4% of the sample. Twenty-four veterans who did not report being bothered by symptoms of PTSD while in Vietnam, do report being bothered by symptoms at the present time. This represents a "Delayed" PTSD rate of 14.6%. An additional 66 veterans reported being bothered by symptoms of PTSD while in Vietnam and are still bothered at the present time. These veterans may be considered to be suffering from "Chronic" PTSD with the rate being 40%. These mutually exclusive categories may be combined to yield an "Overall" PTSD rate representing the number of veterans who have experienced PTSD at any time during or after service in Vietnam. Of the total number of veterans sampled, 107 fit this category for an overall rate of 65.2%.

As a further clarification of these data, separate rates were computed for these categories on the basis of previous combat-related and noncombat-related hospitalizations. The hypothesis here is that wounded soldiers are more likely to have been traumatized by their combat experiences and will exhibit symptoms of PTSD at a higher rate than soldiers who may have been hospitalized for non-combat reasons or never hospitalized. Table I presents a comparison of these data with those obtained several years earlier using the same diagnostic instrument on different Vietnam veteran groups in the United States (see Stretch, 1985; 1986a; 1986b; Stretch, Vail and Maloney, 1985). Results of chi-square analyses indicate that the current PTSD rate is significantly greater (χ[2,162] = 7.82, p =.02) for veterans with combat-related hospitalizations than for all other veterans. The Vietnam PTSD rate for veterans with combat-related hospitalizations is also higher than for all other veterans (χ[2,162] = 5.19, p = 0.07). No significant differences were found when comparing Acute, Chronic, and Delayed rates on the basis of combat-related versus noncombat-related hospitalizations versus no hospitalizations.

In order to determine which independent variables may have had a significant effect on the PTSD symptomatology of these Canadian veterans, a stepwise multiple regression procedure employing the maximum R-Square improvement technique was used. Variables representing combat experience (COMBAT), racial status (RACE), enlisted vs. officer status (RANK), social support received during Vietnam (VSS), social support received during the first year back from Vietnam (FYSS), the year in which the veteran returned from Vietnam (WARYEAR), country of citizenship during Vietnam service (CITIZEN), and number of years after Vietnam the veteran returned to Canada (YEARS) were regressed against a variable representing the eleven symptoms of current PTSD (CPTSD) measured in the VEVAS. (For a more detailed description of the items comprising these variables the reader is referred to Stretch, 1986b). On the basis of the maximum R-Square improvement method, five variables representing the best model for predicting current PTSD symptoms (all F-statistic values significant at alpha < 0.05), were identified: COMBAT, FYSS, CITIZEN, WARYEAR, and VSS. Interaction terms for these variables were computed by standardizing the responses via Z-score transformations. These five variables, in the same order identified in the model, together with all interactions were then regressed against the variable CPTSD, which represents the diagnostic criteria for current PTSD. This procedure allows the regression analysis to test interactions among the variables similar to analysis of variance, but does not require that the independent variables be grouped into discrete levels.

The results of this regression analysis on the variable CPTSD (R-Square = 0.46) revealed highly significant main effects for combat experience (F[1,147] = 16.04, $p < 0.001$), social support during the first year back from Vietnam (F[1,147] = 6.90, $p < 0.01$), and citizenship at time of service in Vietnam (F[1,147] = 3.80, $p < 0.05$). The main effect for the time period served in Vietnam approached but did not exceed conventional levels of statistical significance (F[1,147] = 3.34, p = 0.07). In addition, significant interactions were found for first year social support and year of Vietnam service (F[1,147] = 6.32, p = 0.01), and citizenship and the year veterans served in Vietnam (F[1,147] = 6.78, p = 0.01).

The results indicate that increased combat experience is associated with increased severity of PTSD symptomatology. Also, those veterans whose social support experiences during the first year back from Vietnam were primarily critical in nature or nonsupportive (negative), have significantly higher PTSD symptom levels than do those veterans whose social support experiences were primarily supportive (positive) during that same time period. The results also

indicate that those veterans who were Canadian citizens at the time of their service in Vietnam have significantly higher levels of current PTSD symptomatology than do those veterans who were U.S. citizens at time of service in Vietnam.

In regard to the CITIZEN x WARYEAR interaction, the results of t-test analyses revealed that Vietnam veterans who were Canadian citizens during their tour of duty served significantly earlier in the war (average month of departure = July, 1968) than did veterans who were U.S. citizens during their tour of duty (average month of departure = May, 1969, $t[159] = -2.07$, $p < 0.05$).

To examine the significant interaction on current PTSD symptoms for the year the veteran served in Vietnam and first year social support, service in Vietnam was dichotomized. This was done according to the hypothesis that changes in the nature of the war occurring after the TET Offensive had a significant negative impact on the level of public support for the war which, in turn, was conveyed to returning veterans in the form of less social support for their role in the war. Two separate regression analyses testing the effects of first year social support on current PTSD symptoms were conducted: one for veterans who served in Vietnam prior to the TET Offensive of 1968, and a second for those veterans who served after 1968. The results indicated no significant relationship between first year social support and current PTSD symptomatology for those veterans who served in Vietnam prior to 1968, but a highly significant relationship between these two variables was found for those veterans who served in Vietnam after the 1968 TET Offensive ($F[1,82] = 33.28$, $p < 0.0001$).

To determine what factors may have influenced the development of PTSD symptoms during service in Vietnam, the same independent variables identified in the stepwise regression procedure, as well as all computed interaction terms, were regressed against the variable VPTSD, which represents the eleven items in the VEVAS measuring symptoms of PTSD during this time period. First year social support (FYSS) was not included in the analysis since this variable represents events which took place after service in Vietnam. The results of this analysis (R-Square = 0.38) revealed significant main effects for combat experience ($F[1,157] = 35.14$, $p < 0.001$) and Vietnam social support ($F[1,157] = 14.80$, $p < 0.001$). In addition, a significant interaction effect was found for Vietnam social support and the year the veteran served in Vietnam ($F[1,157] = 5.19$, $p < 0.05$).

As was the case with current PTSD symptoms, increased combat experience was significantly related to increased PTSD symptomatology during Vietnam. Also, increased levels of positive social support for their service while in Vietnam were associated with decreased levels of PTSD symptomatology. In order to determine the relationship of the interaction between Vietnam social support and year of service in Vietnam to Vietnam PTSD symptoms, subjects were divided into two groups based on whether they served in Vietnam prior to or after the TET Offensive of 1968. The variable representing social support in Vietnam (VSS) was then regressed against the variable VPTSD. No significant effect for social support was found for veterans who served prior to TET, but a significant effect was found for veterans who served after TET ($F[1,89] = 19.45$, $p < 0.001$), indicating that it was primarily for these veterans that negative Vietnam social support was associated with increased levels of PTSD symptomatology.

Discussion

Before discussing the results presented thus far, it is necessary to address the issue of response rate. As noted, responses were received from only 35% of the veterans sampled. While not particularly low for survey research, this is a lower return rate than experienced in earlier research on U.S. veterans conducted by the author using the same instrument. Previous rates ranged from 50-75% (Stretch, 1986b) with the lower rate being for civilian veterans whose names and addresses were obtained from the Veterans Administration. Several reasons can be offered for the low return found in the present study. One is the "blind" mailing procedure employed in which only the group leaders and not the investigator knew the names and addresses of potential subjects. While this procedure protected the confidentiality of membership rosters, it made the data collection process much less efficient in that some group leaders may have been less diligent than others in getting the questionnaires mailed out or less enthusiastic in encouraging their members to take part in the study. The use of the postal system also increases the chances that some veterans never received the questionnaire or that completed questionnaires were never received by the investigator due to mail processing errors. Thus the investigator has no objective means of knowing if all questionnaires delivered to group leaders were actually sent out, or if they were indeed received.

A second reason is that Vietnam veterans, as with other trauma survivor groups, are likely to feel alienated and cynical about the law, government, and authority figures (Wilson & Zigelbaum, 1986). Since many veterans tend to blame the government and military for any negative effects resulting from their service in Vietnam, they are likely to view with great suspicion a request to fill out a lengthy questionnaire sent them by a U.S. Army officer. Indeed, the author received many telephone calls from veterans wanting to know if I was "legitimate". Of those veterans who did complete their questionnaires, many wrote comments such as "Why now? Where were you 15 years ago?" One group of veterans in Western Canada which proved to be particularly suspicious contained a large number of deserters who were concerned that the U.S. military was "coming after them" here in Canada. From comments made on several questionnaires, many U.S. veterans moved to Canada because they felt betrayed by the very government and society they had fought for in Vietnam. Undoubtedly many of these veterans feel little incentive to help the U.S. government by participating in this study.

The most likely reason for the low response rate among these Canadian veterans, however, is that after as much as 20 years of isolation from other Vietnam veterans and the lack of recognition and support from both the Canadian government and Canadian society, it is still too painful for them to deal with their experiences. Many veterans moved to Canada because they sought to escape the negative attitudes and hostility they experienced from U.S. society. One U.S. veteran mentioned that he moved to Canada because it reminded him of what the U.S. was like before the Vietnam war. Others moved here to try to forget Vietnam entirely and put the pain behind them. Canadians who returned home after the war found that they had no one to talk to about their problems and learned to keep their feelings bottled up inside. Thus, while the present sample may not be representative of all Vietnam veterans in Canada, it is likely that it represents those who have adjusted the best and are able to respond to painful questions, particularly ones dealing with combat experiences. The reported rates of PTSD are likely to be an underestimate of the population rates.

These findings are most disturbing when they are compared to past findings for Vietnam veterans living in the United States. The data presented in Table I show no large differences in the acute PTSD rates for any of the U.S. or Canadian veterans. The most comparable group is the U.S. civilian sample in that they have also not had any potentially supportive continued affiliation with the military. A major difference between the U.S. civilian sample and the Canadian sample is that the U.S. sample consists of Vietnam veterans who, at time of study, were receiving some form of medical disability compensation from the Veterans Administration. One would expect this group, of which almost 60% were hospitalized for combat reasons while on active duty, to exhibit a higher prevalence of PTSD than other Vietnam veterans. This is true except when compared to the Canadian sample which is a non-compensated group and has a lower rate of combat-related hospitalizations (40%). The major distinction between the two groups seems to lie in the fact that the Canadian veterans' problems with PTSD have not diminished over time, they have only gotten worse. If one examines the Acute and Delayed PTSD rates presented in Table I it is evident that the two groups do not differ in this regard. In terms of Chronic PTSD, however, the rate for Canadian Vietnam veterans is 2.3 times higher than that for the U.S. civilian Vietnam veterans. This is most likely due to three reasons: the lack of social support and recognition from Canadian society; isolation from other Vietnam veterans; and lack of availability of any medical or psychological readjustment counseling services from either the government of Canada or, until recently, the United States.

When asked to comment on why some Vietnam veterans may have had problems adjusting after returning from Vietnam, subjects most often cited a "lack of appropriate or effective mental health care upon returning home " (11.5%), "not being able to talk to people in general about their experiences in Vietnam" (17.7%), "negative or hostile reactions from friends, relatives, or the public in general" (24.8%), and "lack of recognition for having served in Vietnam" (22.1%). Only 12.4% of subjects felt that combat experiences in Vietnam were to blame for the readjustment problems of veterans. Lack of societal support is also evident by the finding that 47.2% of subjects felt that the way they were treated by friends, relatives, or the public in general kept them from talking about their experiences in Vietnam as much as they wanted to. When asked to describe what it has been like to be a Vietnam veteran living in Canada, many veterans responded with comments that they feel like second-class citizens in that they have not received any recognition or benefits from the government of Canada. Many also feel upset that the United States government, for whom they risked their lives in Vietnam, has denied them any help or benefits simply because they reside in Canada. To others, the sense of isolation from other Vietnam veterans here in Canada has been troublesome. Not knowing that other veterans have also had similar psychological difficulties in putting Vietnam behind them has led many veterans to think that they were simply "crazy". It is noteworthy that in spite of all the problems these veterans have had, they still have favorable attitudes toward their military service.

The finding that PTSD symptomatology at the present time, but not during Vietnam, is more severe among veterans who were Canadian rather than U.S. citizens during their service in Vietnam, provides further evidence that PTSD is significantly influenced by events (such as social support) which occurred after combat. Indeed, the change in public attitudes and support for both the war and those who fought in it, which took place after the 1968 TET Offensive, is likely responsible for the significant interaction between first year social support and the time period served in Vietnam on PTSD symptomatology. This argument is also bolstered by the finding that the severity of PTSD symptoms

during Vietnam service was not affected by their citizenship at the time. Thus, increased prevalence of PTSD among Canadian Vietnam veterans seems to be primarily associated with post-war factors. It may be that being ignored by society is just as devastating to the readjustment process as outright hostility and rejection if there are no means of getting help available to the veteran. While Vietnam veterans in the U.S. may have had a tougher time with public opinion and attitudes than Vietnam veterans in Canada, at least U.S. Vietnam veterans have had access to supportive veterans' groups and treatment available from the Veterans Administration. Canadian Vietnam veterans have had neither and appear to continue to pay a heavy price for their service. The granting of medical benefits by the U.S. government to Canadian Vietnam veterans is a step in the right direction. However, without more professionals located in Canada who have been trained to deal with combat-related PTSD, the prospects for adequate readjustment of Canadian Vietnam veterans remain bleak. A joint effort between the U.S. Veterans Administration and the Canadian Division of Veterans Affairs to institute and man Vietnam Veteran Outreach Centers in Canada would go far in helping Canadian Vietnam veterans readjust successfully.

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Table I. PREVALENCE OF PTSD AMONG VETERANS HOSPITALIZED FOR COMBAT INJURIES WHILE IN VIETNAM (COMBAT HOSP), FOR NONCOMBAT REASONS WHILE IN THE MILITARY (NONCOMBAT HOSP), AND NEVER HOSPITALIZED WHILE IN THE MILITARY (NONHOSP).

	US ARMY N=238	US ARMY RESERVE N=677	US CIVILIANS N=499	CANADIANS N=164
COMBAT HOSP	14.8%	15.9%	58.6%	40.1%
NONCOMBAT HOSP	36.9%	18.2%	24.2%	25.9%
NONHOSP	48.3%	65.8%	17.2%	34.0%
PTSD PREVALENCE RATES				
CURRENT PTSD (ALL VETS)	5.1%	11.2%	32.1%	54.9%
COMBAT HOSP VETS	5.7%	20.4%	37.4%	67.7%
NONCOMBAT HOSP VETS	6.9%	13.0%	24.6%	45.2%
NONHOSP VETS	3.5%	8.5%	26.2%	45.5%
VIETNAM PTSD (ALL VETS)	10.5%	12.4%	25.5%	50.6%
COMBAT HOSP VETS	17.1%	22.2%	28.7%	61.5%
NONCOMBAT HOSP VETS	10.3%	12.2%	21.2%	42.9%
NONHOSP VETS	7.9%	10.1%	20.2%	43.6%
ACUTE PTSD (ALL VETS)	7.1%	6.6%	8.2%	10.4%
COMBAT HOSP VETS	14.3%	13.0%	9.1%	10.8%
NONCOMBAT HOSP VETS	5.7%	4.9%	7.6%	11.9%
NONHOSP VETS	5.3%	5.6%	6.0%	9.1%
CHRONIC PTSD (ALL VETS)	3.4%	5.8%	17.2%	40.2%
COMBAT HOSP VETS	2.9%	9.3%	19.6%	50.8%
NONCOMBAT HOSP VETS	4.6%	7.3%	13.6%	31.0%
NONHOSP VETS	2.6%	4.5%	14.3%	34.5%
DELAYED PTSD (ALL VETS)	1.7%	5.5%	14.8%	14.6%
COMBAT HOSP VETS	2.9%	11.1%	17.8%	16.9%
NONCOMBAT HOSP VETS	2.3%	5.7%	11.0%	14.3%
NONHOSP VETS	0.9%	4.0%	11.9%	10.9%
OVERALL PTSD (ALL VETS)	12.2%	17.9%	40.2%	65.2%
COMBAT HOSP VETS	20.1%	33.4%	46.5%	78.5%
NONCOMBAT HOSP VETS	12.6%	17.9%	32.2%	57.1%
NONHOSP VETS	8.8%	14.1%	32.1%	54.5%